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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,784	03/18/2004	James Moore	241	8038

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PATENT DEPARTMENT
MACROVISION CORPORATION
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EXAMINER

MORAN, RANDAL D

ART UNIT	PAPER NUMBER
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2135

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/803,784

Applicant(s)

MOORE ET AL.

Examiner

Randal D. Moran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-70 is/are pending in the application.
- 4a) Of the above claim(s) 26,27,51,52 and 57-60 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25,28-50 and 53-56 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Continuation Sheet.
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. The Information Disclosure Statements filed on 8/26/2004, 7/29/2005, 5/8/2006, 5/19/2006, 8/7/2006, 10/10/2006, and 10/31/2006 have been considered by the examiner.

2. Claims 26, 27, 51, 52, and 57-70 are withdrawn due to restriction. Claims 1-25, 28-50, 53-56 are pending in the application.

3. Below, Examiner has pointed out particular references contained in the prior art(s) of record in the body of this action for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claims, other passages and figures may apply as well. Applicant should consider the entire prior art as applicable as to the limitations of the claims. It is respectfully requested from the applicant, in preparing the response, to consider fully each reference in its entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior arts or disclosed by the examiner.

Election/Restrictions

1. This application contains claims directed to the following patentably distinct species:

- Species 1: Fig. 6 and Fig. 7 associate with **Claims 1-25, 28-50, and 53-56.**
- Species 2: Fig. 14 associates with **Claims 26, 27, 51, and 52.**
- Species 3: Fig.'s 8-12 associates with **Claims 57-70.**

2. The species are independent or distinct because each of the various disclosed species details specific characteristic of the following:

- Species 1: A method for interdicting unauthorized copying in a decentralized network, comprising: infiltrating a decentralized network with a plurality of software agents masquerading as nodes so as to intercept communications related to search queries; identifying references to protected files in the communications; and interdicting unauthorized copying of the protected files with respect to the communications.
- Species 2: The instructions sent by the central coordinating authority include an instruction to transmit the alternative file such that the transmission rate slows down during the transmission. The instructions sent by the central coordinating authority include an instruction to transmit the alternative file such that the transmission terminates automatically after most, but not all of the alternative file has been downloaded.

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- Species 3: A method for interdicting unauthorized copying in a decentralized network, comprising: interposing one or more software agents resembling nodes between a client node and neighboring nodes of the client node in a decentralized network such that all communications related to search queries must pass through the one or more software agents so as to allow the one or more software agents to interdict unauthorized copying by the client node in the decentralized network.
3. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claims are generic.
4. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.
5. Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after

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the election, applicant must indicate which are readable upon the elected species.

MPEP § 809.02 (a).

6. During a telephone conversation with Victor Okumoto on 4/18/2007, a provisional election was made without traverse to prosecute the invention of Species 1, **Claims 1-25, 28-50, and 53-56**. Affirmation of this election must be made by applicant in replying to this Office action. **Claims 26, 27, 51, 52, and 57-70** are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Objections

1. **Claims 10, 11, 33, 37, 40 and 41** are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form.

- **Claims 10 and 11** contain all the limitations and have the same scope as preceding Claim 9.
- **Claim 33** contains all the limitations and has the same scope as preceding Claim 32.
- **Claim 37** contains all the limitations and has the same scope as preceding Claim 36.
- **Claims 40 and 41** contain all the limitations and have the same scope as preceding Claim 39.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claim 3** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Considering **Claim 3**- line 5, the term "made difficult" is a relative term which renders the claim indefinite. The term "made difficult" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. **Claims 1-25, 28-50, and 53-56** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter, as they do not fall under any of the statutory classes of inventions. The language in the claims and specification ([0037], [0043]) raise an issue because the claims are directed merely to an abstract idea that is not tied to an article of manufacture which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

The claims could reasonably be drawn to functional descriptive material, per se, i.e., "program" may be taken to mean software alone, and as such, the claims would be directed to non-statutory subject matter.

- Considering **Claim 1**, a plurality of software agents is defined as "implemented as software residing on one or more computers" ([0037]). A query matcher is defined as "implemented as software residing on a computer". Therefore, the system of Claim 1 is entirely software and is non-statutory subject matter.

- Considering **Claim 6**, a central coordinating authority is defined as “implemented in software on a computer” ([0045]). Therefore, the system of Claim 6 is entirely software and is non-statutory subject matter.
- Considering **Claim 34**, a plurality of software agents is defined as “implemented as software residing on one or more computers” ([0037]). Therefore, the method of Claim 34 is implemented entirely in software and is non-statutory subject matter.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-15, 17-23, 28, 29, 34, 38-50, 53-56** are rejected under 35 U.S.C. 102() as being anticipated by **Peled et al. (US 2002/0087885)**, hereafter “Peled”.

3. Peled was submitted by the applicant in an IDS filed on 8/26/2004.

4. Considering **Claims 1 and 34**, Peled discloses a system for interdicting unauthorized copying in a decentralized network ([0002]) comprising: a plurality

of software agents masquerading as nodes in a decentralized network ([0035], [0099] lines 5-8, Fig. 2- item 16); and a query matcher ([0101] lines 1-5, Fig. 1- item 18) that receives search results from the plurality of software agents ([0020]), and reports matches of the search results with protected files back to the plurality of software agents ([0021]) so that the software agents can interdict unauthorized copying of the protected files in the decentralized network ([0041], [0096] lines 36-41, [0118] lines 4-6).

5. Considering **Claim 2**, Peled discloses the plurality of software agents reside on one or more computers while communicating to the decentralized network through individually assigned ports ([0032], [0078] lines 3-8, [0122]).
6. Considering **Claim 3**, Peled discloses the assigned ports have corresponding IP addresses that change in a manner so that detection of the plurality of software agents as unauthorized masqueraders of nodes in the decentralized network is made difficult ([0112] lines 4-12, [0130] lines 6-10, disguising messages as being from a spoof server makes detection of the surveillance elements difficult).
7. Considering **Claim 4**, Peled discloses the number and geographical locations of the one or more computers is determined by the number and geographical distribution of nodes in the decentralized network ([0033], [0039]).

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8. Considering **Claim 5**, Peled discloses the query matcher has a database including metadata for the protected files ([0021], [0025]).
9. Considering **Claim 6**, Peled discloses a central coordinating authority coordinating activities of the plurality of software agents so as to interdict unauthorized copying in the decentralized network ([0033], [0039]).
10. Considering **Claim 7**, Peled discloses the central coordinating authority sends instructions to the plurality of software agents specifying actions to be taken when the plurality of software agents receive matches of the search results with protected files back from the query matcher ([0050], [0058], [0096] lines 31-33).
11. Considering **Claims 8 and 38**, Peled discloses the instructions sent by the central coordinating authority include an instruction to generate modified search results (i.e. specifying actions) by deleting at least a subset of references corresponding to the matches of the search results, and forward the modified search results through the decentralized network ([0050], [0058], [0096] lines 31-33, [0130] lines 3-6, deleting messages that contain the protected content would remove the protected content from the search results before they are returned to the network).

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12. Considering **Claims 9-11 and 39-41**, Peled discloses the instructions sent by the central coordinating authority include an instruction to generate modified search results by modifying at least a subset of references corresponding to the matches of the search results so as to point to one or more IP addresses that are invalid, and forward the modified search results through the decentralized network ([0118] lines 4-6, [0119] lines 7-9).
13. Considering **Claims 12 and 42**, Peled discloses the instructions sent by the central coordinating authority include an instruction to generate modified search results by modifying at least a subset of references corresponding to the matches of the search results so as to point to alternative files, and forward the modified search results through the decentralized network ([0118] lines 4-9):
14. Considering **Claim 13**, Peled discloses the alternative files include at least one randomly selected file residing on a node upon which one of the matches of the search results resides ([0118] lines 4-9).
15. Considering **Claims 14 and 43**, Peled discloses the alternative files include at least one decoy file residing on a host node controlled by the central coordinating authority ([0118] lines 4-9, [0120] lines 7-14).

16. Considering **Claim 15**, Peled discloses the alternative files include at least one randomly selected file residing on a host node controlled by the central coordinating authority ([0118] lines 4-9).
17. Considering **Claims 17 and 45**, Peled discloses the instructions sent by the central coordinating authority include an instruction to send an alternative file to a client node when a request for a protected file is received from the client node ([0118] lines 4-17).
18. Considering **Claims 18 and 46**, Peled discloses the alternative file is a decoy ([0118] lines 4-9, [0119] lines 7-13).
19. Considering **Claims 19-23, 47, and 49**, Peled discloses the decoy is an audio file containing white noise, the decoy is a video file containing white noise, the decoy is an application containing a NOP executable that terminates the application when executed, the decoy is an image file containing snow, the decoy is a document with blank contents ([0118] lines 4-9, [0019] lines 7-13).
20. Considering **Claims 28, 53, and 54**, Peled discloses the instructions sent by the central coordinating authority include an instruction to modify at least one reference corresponding to a match in the search results so as to point to a non-existent file along with a reported hash value that does not correspond to any file

in the decentralized network instead of the at least one reference ([0024], [0096] lines 19-41, [0120] lines 7-14).

21. Considering **Claims 29 and 55**, Peled discloses the instructions sent by the central coordinating authority include an instruction to modify a reference corresponding to a match in the search results so as to point to a spoof file instead of the reference and report a hash value matching that of the reference even though the contents of the spoof file do not exactly match that of the reference ([0096] lines 19-41, [0120] lines 7-14).
22. Considering **Claim 56**, Peled discloses one of the communications is a request to one of the plurality of software agents from a client node for at least a segment of a protected file ([0128], [0129]), and the interdicting of unauthorized copying comprises: transmitting data to the client node in response to the request so that a corrupted file is detected upon completion of downloading of the protected file to the client node ([0118] lines 4-6, [0120]).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 16, 24, 25, 30-33, 35-37, 44, and 48** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Peled** in view of **Schmelzer (WO 02/082271)**, hereafter "Schmelzer".

3. Schmelzer was presented by the applicant in an IDS filed on 6/29/2005).

4. Considering **Claims 16, 25, 44 and 50**, Peled does not explicitly disclose the alternative files include at least one rights-managed version of the matches.

Schmelzer does explicitly disclose the alternative files include at least one rights-managed version of the matches (p.13- lines 14-20 and 26-31, p. 15- lines 15-19, Fig. 20, Fig. 21).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Peled by responding to request for protected content by directing the user to a rights-managed version of the data as taught by Schmelzer in order to provide a reliable and secure system for enabling intellectual property owners to distribute digital materials while preventing infringement of intellectual property rights (Schmelzer- p. 5- lines 8-10). It is of great interest to find a method that may stop or at least

reduce copyright infringement without interfering with the lawful use of file sharing systems (Peled- [0003] lines 6-9)

5. Considering **Claims 24 and 48**, Peled does not explicitly disclose the decoy contains an anti-piracy message. Peled does suggest discouraging the user from using the source again by transmitting content that does not satisfy the user ([0118] lines 4-17). This could be read as an anti-piracy message.

The combination of Peled and Schmelzer discloses the decoy contains an anti-piracy message (Schmelzer- p.13- lines 14-20 and 26-31, p.15- lines 15-19, Fig. 1, Fig. 2).

6. Considering **Claims 30, 31, and 35**, the combination of Peled and Schmelzer discloses the decentralized network is an hierarchical network with supernodes and regular nodes (Schmelzer- p. 7- lines 14-19, the supernodes in the network would be routers having content recognition capability, Peled- Fig. 3, Fig. 4, [0035], the surveillance elements act as servers with the capability to allow them to obtain data of documents on the system for search functionality, these elements act as the supernodes), and the plurality of software agents masquerade as regular nodes that inform their respective supernodes that they have copies of protected files and claim node attributes so that the plurality of

software agents will be selected as top matches by their respective supernodes for search strings indicating the protected files (Peled- [0033], [0038]-[0041]).

7. Considering **Claims 32, 33, 36 and 37**, the combination of Peled and Schmelzer discloses the decentralized network is an hierarchical network with supernodes and regular nodes (Schmelzer- p. 7- lines 14-19, the supernodes in the network would be routers having content recognition capability, Peled- Fig. 3, Fig. 4, [0035], the surveillance elements act as servers with the capability to allow them to obtain data of documents on the system for search functionality, these elements act as the supernodes), and the plurality of software agents inform the decentralized network that they are supernodes according to the protocol of the decentralized network (Peled- [0033], [0038]-[0041], [0122]).

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US 2002/0065880 – Supplying programs via Networks.
- US 2003/0095660 – Protecting digital works on a communication network.
- US 2005/0154681 – Copyright detection and protection system.

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2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randal D. Moran whose telephone number is 571-270-1255. The examiner can normally be reached on M-F: 7:00 - 4:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Randal D. Moran

RDm

4/18/07


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